TSM&O Focus Area: Operations

Planning	PD&E/Design
• Evaluate accommodation of operations and ITS projects with other projects in work program to avoid preclusions • Conduct regular planning for TSM (Transportation Systems Management – similar to TSM&O) • Network planning includes operations consideration • Will be using TOC data to inform next update of travel demand model • Safety issues have triggered roadway reconfigurations (passing lanes on 2-lane road)	• Adhere to Federal requirement to look at TSM&O options (e.g. one way pairs) • For projects with greater complexity, coordination takes place with traffic operations group • Coordinate with locals or public information office for special event scheduling
Traffic Operations	**Construction**
• Traveler Info Systems: deployed along I-75, managed through Fort Myers; plan in place to fully cover I-75 across whole district ○ Includes DMS, CCTV, detectors, some road weather info systems • Sharing of CCTV with law enforcement via internet being rolled out • Perform public outreach (e.g. email blasts to stakeholders on road closures) • Work with design/PD&E on project scopes for incorporation of ITS • Collect speed and volume data and send to data warehouse (CDW); not currently shared internally with district or beyond but could be capitalized on • District's own data collection could be coordinated with CDW • Lack of resources for arterial system traffic signal operations	• Generate notifications of closures for display on DMS • Coordinate with maintenance on on-call system
Maintenance	
• Receive some feedback from traveler info systems (e.g. smoke, fog incident closures) • Contribute to "Road Watch," a one-week look-ahead press release on maintenance activities issued through public info office • Asset maintenance contractors notify TMC of incidents • Responsible for evacuation plans • Special events: send road closure permits to Traffic Operations for info dissemination, but when there are no permits, it's not clear what the path for info dissemination is	

Comment [RDG1]: More of a capacity issue, not TSM&O

TSM&O Functional Area: Modal Management

Planning	PD&E/Design

• Facilitate corridor-wide coordination across jurisdictions (statewide freight rail, freeway corridors [I-75])
  ○ Education is necessary (e.g. upgrades, integration with other systems)
• Act as liaisons with MPOs; MPOs have dedicated money for congestion management; projects are selected through advisory committees by request
  ○ Annual review process by Polk TPO on prioritizing projects
• Consideration of operations at MPO level through modeling; enforce model continuity across county lines; moving toward district-wide model
• Potential gap with shorter range modeling (1-2 years), between project-specific modeling and long-range planning
• In general, planning defines needs
  ○ For example, BRT: perform feasibility study, make land use recommendations, identify existing issues outside of dept. (e.g. traffic signal coordination)
  ○ Consult before report publication, vet through appropriate dept. heads, get buy-in from district engineer
  ○ Similar process for freight mobility studies
  ○ Some financial consideration in terms of feasibility
• Identify small safety operational improvements funded through CMAQ
  ○ But level of funding not known without examining work program
  ○ Have not yet measured impacts
	• Simply incorporate numbers and information from planning (e.g. in terms of traffic signal timing)
	• Question exists in terms of responsibility over local roads and arterials with respect to traffic from interstates
	• When funding is insufficient for ultimate plan, design less and leave accommodation for expansion

Comment [RDG2]: More of a capacity issue, not TSM&O

Traffic Operations	Construction

• Examine effect on regular traffic flow and examine effect on signal operation (BRT example)
• For commercial vehicle operations: recent problem is parking at rest areas, creates traffic hazard
  ○ Currently studying issue, collecting data
  ○ Planning to integrate into 511, disseminate info to truckers on available (safe) parking
• Act as liaisons providing input on small safety operational improvements funded through CMAQ; involved in related field reviews
	• Little direct coordination with planning, design, operations
	• Follow MOT plans, take advantage of available ITS infrastructure
	• Provide temporary ITS system when construction interrupts permanent system (responsibility of design and construction, included in specs)
	• Maintain full actuation of signals through temporary detection
	• Coordinate closure or rerouting of transit (bus)

Maintenance

- Make recommendations from maintenance perspective (e.g. overweight restrictions)
- Provide input on permit issuance for oversize vehicles, coordinate with operations
- Work with locals on special events to identify and encourage alternate corridors
  - Main goal is to minimize impact, impart understanding of implications
- Maintain weigh-in-motion stations through asset management contracts

Comment [RDG3]: Are these modal management? Or traffic management?

TSM&O Functional Area: <u>Traffic Management</u>

Planning	PD&E/Design
• No planning involvement in work zone management • Bigger picture involvement: larger reconstruction projects' MOT (can include rail on parallel corridors) • Engaged in very long-range planning for managed lanes, integrated into travel demand model • Using lessons learned from South FL (e.g. no transit on shoulders) in planning for MLs • Feedback acquired through involvement in PD&E • Work with commuter services program on travel demand management (e.g. outreach for carpooling, rideshare) ○ Mode split is too small to measure effectiveness	• Coordinate with traffic operations (for example with intersection reconfiguration) • Solicit input from other departments on traffic management strategies for incorporation into consultant contracts, follows standard request and contracting process • Coordinate on public outreach for significant closures (potentially 1 year in advance); provide info to Public Information Office • Review lane closures against policy, perform analysis on a per project basis • Contracts include stipulations to avoid lane closures during specific times (peak, special events, etc.)
Traffic Operations	**Construction**
• Adjust consultant reconstruction contract scopes to include traffic signal timing plans as part of MOT • Provide support for traffic signal timing during repaving projects • Issue: How is it known if signal timing plans during reconstruction or repaving are working as intended (both from perspective of consultant's plan and what the contractor actually implements)? • Documents plans and procedures to facilitate succession	• Field complaints and coordinates response to signal operation MOT plans; provides feedback to consultants • Provide 2-week advance notification on lane closures • Examine alternative contracting methods (incentive/disincentive contracts) to expedite completion by contractors in certain cases (when funding is available) • Coordinate Barrier Island construction season scheduled between Easter and Thanksgiving to accommodate tourists • Does not capitalize on ITS infrastructure in work zones
Maintenance	
• Manage Road Ranger service on all interstate corridors • Assist with longer-term MOT through asset management • Some corridors covered through asset maintenance contracts • Consider (occasionally) provision for ability to assist motorists in work zones	

TSM&O Functional Area: <u>Other</u> *(Electronic Payment/Toll Collection, Public-Private Partnerships)*

Planning	PD&E/Design
• Coordinate ITS architecture through MPOs (e.g. standards adoption)	• US 301 – successful P3 project (widening) [*Marlon ____ knows the details*]
Traffic Operations	**Construction**
• Ongoing upgrades to ITS architecture in several counties • AVL in buses: data is available	•
Maintenance	
•	

Comment [RDG4]: More of a capacity issue, not TSM&O

TSM&O Functional Area: <u>Supporting Programs</u> *(Performance Measurement, Data, Collaboration, Systems/Tech)*

Planning	**PD&E/Design**

• At policy level, need to develop metric for resource allocation that moves away from LOS (potentially travel times)
  ○ Determine what strategies can improve the metric
  ○ Would be able to easily examine trade-offs using B/C ratios
  ○ Would elevate TSM&O strategies within prioritization ranking
	•

Traffic Operations	**Construction**

• CDW should be used to supply data to support decision making
• Plan to work with local agencies to collect real-time data to improve performance
	• Recommendation: Measure travel times along construction project limits before and during work to measure work zone impact
	  ○ Could be incorporated into design-build scope but difficult to do otherwise because contractor simply adheres to MOT plan provided by dept.
	  ○ However, could be applied in the case of signal timing maintenance and may lend itself to a pilot project
	  ○ Would need to define purpose of data collection, thresholds for improvement, and improvement actions
	  ○ Would also need to measure a variety of projects before it would be generally applicable to new projects

Maintenance	
• TIM teams collecting data on incident duration and response (statewide initiative) • Currently asking TIM teams on how to use the data to make improvements • Need to come to an agreement on measuring secondary incidents	

Additional Notes

Sec. Hattaway asked about excess delay - how is it calculated and valued?

General observations:

Public Information Office (PIO) is a major stakeholder also

Data Sharing - warehouse is needed at state level to share data between planning and operations

May need more traffic management for special events - currently somewhat ad hoc

Decision Making Process - for selection of projects tends to be based on HCM methods - should be based on network travel time - to best identify which strategy gives the "best bang for the buck"

General Action items:

May be a need to perform more evaluation and feedback to planning and operations

IDEA for pilot project - sensors in work zone to track speeds and better manage work zones - before, during, after

Would like dedicated funding source for arterial operations